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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,540	01/18/2000	Kenichi Sawada	325772014200	9807

25227 7590 12/10/2002

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2623

DATE MAILED: 12/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/484,540	SAWADA, KENICHI
	Examiner Jingge Wu	Art Unit 2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 November 2002.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 and 26-34 is/are pending in the application.
 - 4a) Of the above claim(s) 21-25 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 and 26-34 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3-5</u> .	6) <input type="checkbox"/> Other: _____ .

Detailed Rejection

1. Applicant's election without traverse of species I claims 1-20 and 26-34 in Paper No. 8 is acknowledged.

Claim Objections

2. Claims 7-8 are objected to because of the following informalities: claim 7 line 3 and claim 8 line 3 "outside the image". The "image" should be changed to -- edge area -- Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 7-10, 26-27, and 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5361147 to Katayama et al.

As to claim 1, Katayama discloses a image processing apparatus for processing image data, the apparatus comprising:

an edge detecting portion for detecting an edge area in the image in accordance with the image data (col. 2 lines 25-65, col. 20, lines 9-39, col. 27 lines 31-32);

an edge enlarging portion for enlarging the edge data detected by the edge detection portion (col. 2, lines 63-66, col. 27, lines 39-41); and

a density correction portion for increasing or decreasing the density value of the image data of the edge data enlarged by the edge enlarging portion (col. 22, lines 47-61, col. 27 lines 59-63, note that replacing a color “with a value which frequently appears”, average or median value constitutes increase or decrease the density value of the image data).

As to claim 2, Katayama further discloses the edge detection portion uses a first order differential filter to determine the edge upon a predetermined threshold (col. 20 lines 10-46).

As to claim 7, Katayama further discloses the edge enlarging portion enlarges the edge area but does not enlarge the outside of the edge (col. 27, lines 39-41).

As to claim 8, Katayama further discloses using luminance (lightness) component to detect edge area (col. 14, lines 1-47, col. 20, lines 10-34).

As to claim 9 and 10, Katayama further discloses using average or median density value to correct the edge ((col. 22, lines 47-61, col. 27 lines 59-63, note that Katayama utilizes replacing a color “with a value which frequently appears”, average or median value).

As to claims 26-27 and 31-34, the claims are the corresponding method claims to claims 1-2 and 7-10 respectively. The discussion are addressed with regard to claims 1-2 and 7-10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-12, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama in view of US 5742410 to Suzuki.

As to claim 11, Katayama discloses all limitations except modifying the edge area according to the lightness information.

Suzuki, in an analogous environment, discloses a edge quantity detection circuit to detect the edge quantity (the edge area) according to the lightness values (col. 13, line 41-col. 15 line 26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Suzuki in the method of Katayama in order to accurately enlarge the edge area for better color correction.

As to claims 12, 17-20, the discussions are addressed with regard to claim 2, 7-10.

7. Claims 4-6, 14-16, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama in view of US 5430557 to Tamura et al.

As to claims 4-5, Katayama does not explicitly mention controlling the enlarging degree.

Tamura, in an analogous environment, discloses a edge width controller for control the width of the edge, i.e., controlling the enlarging degree according to the controller responding to the kind of image (Fig. 5 element 44Y, col. 8 line 55-64, col. 12 lines 57-68).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Tamura in the method of Katayama in order to accurately enlarge the edge area for better color correction.

As to claim 6, Katayama further discloses the image data is a monochromatic (black/white) or other kind is color image data (col. 14).

As to claims 28-30, the claims are the corresponding method claims to claims 4-6 respectively. The discussion are addressed with regard to claims 4-6.

8. Claims 3, 13 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama in view of US 5357353 to Hirata.

As to claim 3, Katayama does not explicitly mention increasing a density of black components and decreasing that of color components.

Hirata, in an analogous environment, discloses increasing a density of black components and decreasing that of color components in the black edge area (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Suzuki in the method of Katayama in order to reduce the color deviation in the black character area (col. 1-col. 2).

As to claims 13 and 27, the claims are the corresponding method claims to claim 3 respectively. The discussion are addressed with regard to claim 3.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6088130 to Matsukubo and US 5850293 to Suzuki discloses method for black character enhancing.

Contact Information

10. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner